

Determination of Public Land (Rangeland) Health for 65035 WHITE LAKE RANCH

The Record of Decision (ROD) for the New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management (dated January 2001) adopted three Standards for Public Land Health. These are (1) Upland Sites Standard, (2) Biotic Communities, Including Native, Threatened, Endangered, and Special Status Species Standard and (3) Riparian Sites Standard.

The ROD also established a process for the BLM Field Offices for the implementation. Through a public participation process, the Roswell Field Office developed and adopted indicators to use in conjunction with existing monitoring data to assess these standards.

Field assessment worksheets and other available data that evaluate the local indicators were completed for this allotment. Based on the assessments, it is my determination that the public land within the White Lake Ranch allotment #65035 meets the Upland Sites standard and (2) Biotic Communities, including Native, Threatened, Endangered and Special Status Species standard. There are no public land Riparian areas on this allotment, therefore this standard was not addressed.

/s/ T. R. KREAGER

Assistant Field Manager

09/29/2004

Date

Standards of Public Land Health

Evaluation of 65035 WHITE LAKE RANCH Allotment

[03/13/2004]

The Roswell Field Office conducted rangeland health assessments at one study site within the White Lake Ranch Allot #65035. The assessments looked at the Soil/Site Stability, Hydrologic Function and Biotic Integrity indicators within the vicinity of each study site. Existing monitoring data was incorporated into and in support of the field assessment. The summary of each assessment is attached and shown in the following table.

Study Area or Assessment Area	UPLAND			BIOTIC			RIPARIAN		
	Meets	Monitor an Indicator	Does Not Meet	Meets	Monitor an Indicator	Does Not Meet	Meets	Monitor an Indicator	Does Not Meet
65035-JT155-C034 (*)	X			X			N/A		

Twenty-two (22) indicators for Rangeland Health were evaluated for the White Lake Ranch allotment; 10 of these assessed soil/site stability, 11 assessed hydrologic functions and 13 assessed biotic integrity. These qualitative assessments along with quantitative information from two areas on the allotment were utilized to assess the rangeland health of the public land within the allotment. This allotment is a "C" category (custodial) because of the small amount of public land within the allotment.

Drought has had an impact on this allotment over the last few years. The soil in the area of the assessment is classified as Fasikin soil (FaA). This soil supports an association of Sandy Plains, Deep Sand and Sand Hills CP-2 ecological sites. At the assessment area the Sand Hills ecological site was dominant. The indicators evaluated rated None to Slight to Slight to Moderate except for annual production and invasive plants, both rating at Moderate. The plant cover changes have only a minor effect on infiltration at present, and currently the erosion potential is low for this Fasikin soil phase, predominantly made up of fine sand. There is a slight reduction in soil surface stability throughout the site in plant interspace and canopy soil samples. Soil surface resistance to erosion rated Slight to Moderate as the results from the soil site stability test. There are slight deviations from the Ecological Site Description however, as the functional/structural species groups such as sand bluestem (*Andropogon hallii*) and little bluestem (*Schizachyrium scoparium*) grass species' dominance has been reduced. The increase of threeawn (*Aristida* spp.) onsite has contributed to the F/S indicator rating of Slight to Moderate. Shinnery oak (*Quercus havardii*) and sand sage (*Artemisia filifolia*), have persisted though, and match what the ESD describes for the potential plant community for shrubs. Annual production, rating Moderate, currently is estimated at 40 - 60% of the ESD for normal years production. Invasive plants also rated Moderate/Extreme as mesquite (*Prosopis glandulosa*) catclaw acacia and yucca (*Yucca* spp.) are scattered throughout. The physical crusts observed are largely intact and the degree of departure is very minor.

Hydrology - Pasture JT 155 - The bare ground indicator rated as moderate. The amount of bareground has possibly increased due to recent dry conditions and also wind and water erosion processes. Soil surface resistance to erosion rated in the moderate category. All other indicators rated as none to slight or slight to moderate. Sand and gravel deposits of Quaternary pediment outcrop in the area.

Wildlife/Biotic - Evaluation of the integrity of the biotic community considered several indicators as attribute indices for the area of interest. Biotic indicators are interrelated with several other indicators, including soil/site stability, hydrologic function and vegetation. Several indicators are singularly biotic and address the vegetative aspect of the ecological site description, such as functional/structural groups and plant mortality & decadence, as described above. In addition to the standard worksheet biotic factors, four specific wildlife indicators and descriptors are included in this evaluation.

Considering the long-term drought conditions, the allotment is in fair condition. Those indicators that drought along with some livestock grazing have influenced were rated as with one rated as moderate to extreme. Soil surface loss to erosion, annual production, functional/structural groups were those rated as moderate with invasive plants rated as moderate to extreme.

There are no Threatened or Endangered Species present within the area or are there any potential or critical habitats identified for T/E species. Wildlife habitat and populations indicators rate slight to moderate, primarily for pronghorn antelope, desert mule deer, upland game birds, and a variety of non-game terrestrial species. The composition reflects current climatic conditions (drought), but will recover over time with normal precipitation patterns that are in line with the amount of vegetative production. The sand Hills ecological range site is normally habitat for the candidate lesser prairie chicken and sand dune lizard. Due to this area lying on the extreme western edge of range of this two species, neither have been documented to occur within the allotment. This may be due to habitat patch size and fragmentation by major highways, powerlines, railroads, and the infrastructure of oil and gas development.

It is the professional opinion of the Assessment Team. that the public land within the White Lake Ranch allotment meets the Upland and Biotic standards. There are no Riparian issues present, therefore this standard was not addressed. See site notes and recommendations

The (*) indicates that the assessment had one or more indicator(s) rated moderate/extreme or extreme. These indicators are:

- Invasive Plants

These indicators by themselves are not enough to rate the site as not meeting a standard but may warrant future monitoring.

RFOs Upland and Biotic Standard Assessment Summary Worksheet						
SITE 65035-JT155-C034						
Legal Land Desc	NWSW 19 0080S 0280E Meridian 23		Acreage		953	
Ecosite	070BY061NM SAND HILLS CP-2		Photo Taken		Y	
Watershed	13060003220 FILLMORE					
Observers	SPAIN/NAVARRO		Observation Date		03/16/2004	
County Soil Survey	NM644 CHAVES NORTH		Soil Var/Taxad			
Soil Map Unit	FaA		Soil Taxon Name		FASKIN	
Texture Class	NM644 LFS		Soil Phase		FASKIN	
Texture Modifier	NM644 FINE SAND					
Observed Avg Annual Precipitation			Observed Avg Growing Season Precipitation			
NOAA Annual Precipitation	11.27		NOAA Growing Season Precipitation		7.64	
NOAA Avg Annual Precipitation	13.53		NOAA Avg Growing Season Precipitation		11.18	
Disturbances and Animal Use:						
Part 2. Attributes and Indicators						
		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extrem e	Moderat e to Extreme	Moderat e	Slight to Moderat e	None to Slight
S H	Rills					X
Comments :						
S H	Water Flow Patterns				X	
Comments :						
S H	Pedestals and/or Terracettes				X	
Comments :						
S H	Bare Ground			X		

Comments :						
S H	Gullies					X
Comments :						
S	Wind-scoured, Blowouts, and/or Deposition Areas					X
Comments :						
H	Litter Movement				X	
Comments :						
S H B	Soil Surface Resistance to Erosion			X		
Comments :						
S H B	Soil Surface Loss or Degradation				X	
Comments :						
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff				X	
Comments :						
S H B	Compaction Layer					X
Comments :						
B	Functional/Structural Groups			X		
Comments :	More Aristida spp present and scattered catclaw (Acacia spp)					
B	Plant Mortality/Decadence					X
Comments :						
H B	Litter Amount				X	
Comments :						
B	Annual Production			X		

Comments :						
B	Invasive Plants		X			
Comments :	Mesquite is common through-out the area and Acacia spp (catclaw) scattered in moderately dense patches					
B	Reproductive Capability of Perennial Plants					X
Comments :						
S	Physical/Chemical/Biological Crusts				X	
Comments :						
B	Wildlife Habitat				X	
Comments :						
B	Wildlife Populations				X	
Comments :						
B	Special Status Species Habitat					X
Comments :						
B	Special Status Species Populations					X
Comments :						
Part 3. Summary						
A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.						
Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	2	4	4
H	Hydrologic	0	0	2	6	3
B	Biotic	0	1	3	4	5

<p>B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the <i>Does not Meet</i> column, Moderate becomes <i>May Need More Info</i>, and Slight to Moderate and None to Slight merge to form the <i>Meets</i> columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.</p>				
Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil		0	2	8
Hydrologic		0	2	9
Biotic		1	3	9
<p>Site Notes: Several herds of pronghorn antelope were observed in the area. Recent precipitation</p>				

White Lake Ranch Allotment 65035



Reclamation of Older Oil/Gas Pad



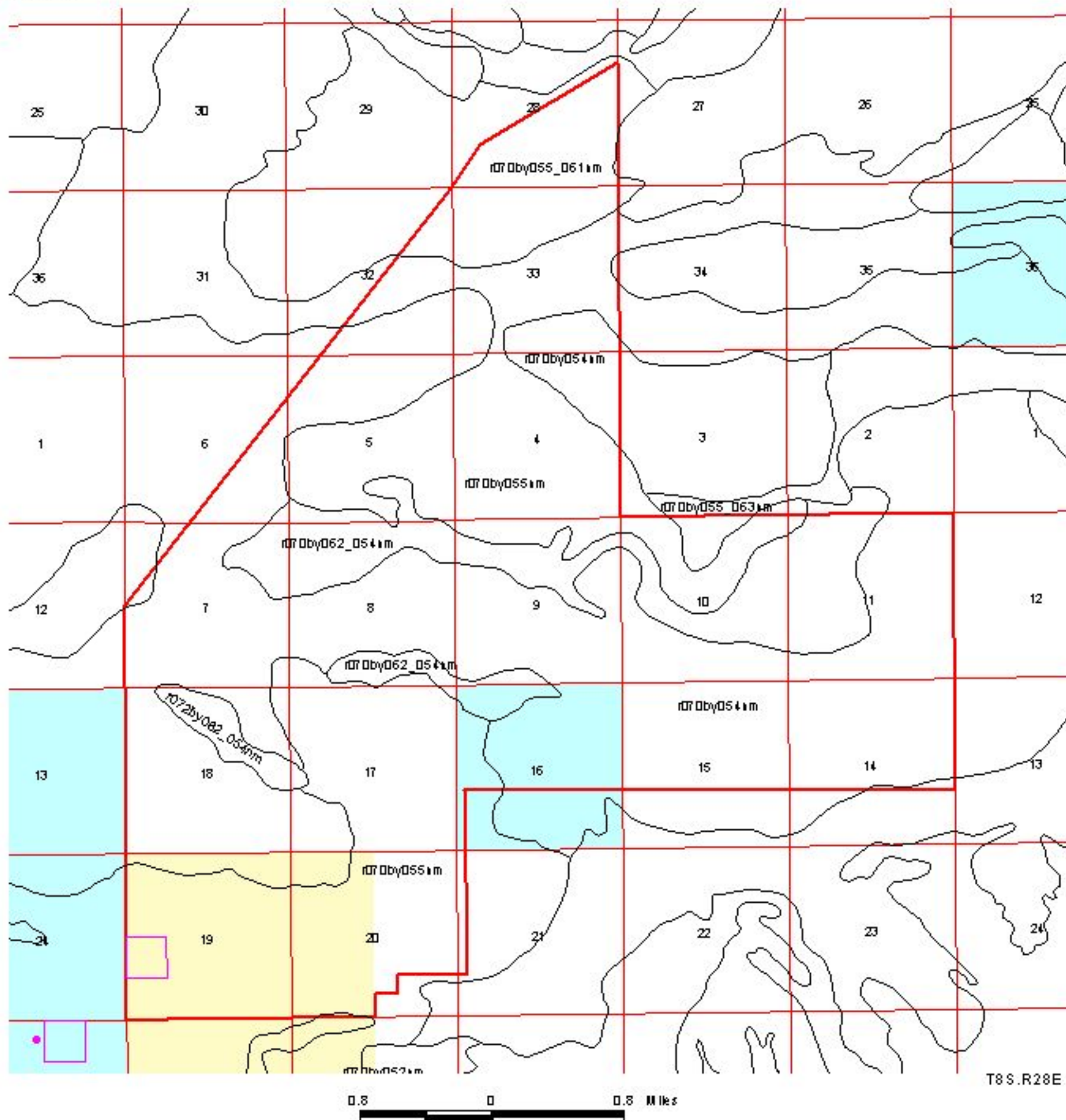


Rangeland Health Assessment Ecological Sites

Allotment 65035



T7S.R27E



Public



State



Study Plots



Private



Study Locations



Ecological Site Boundary



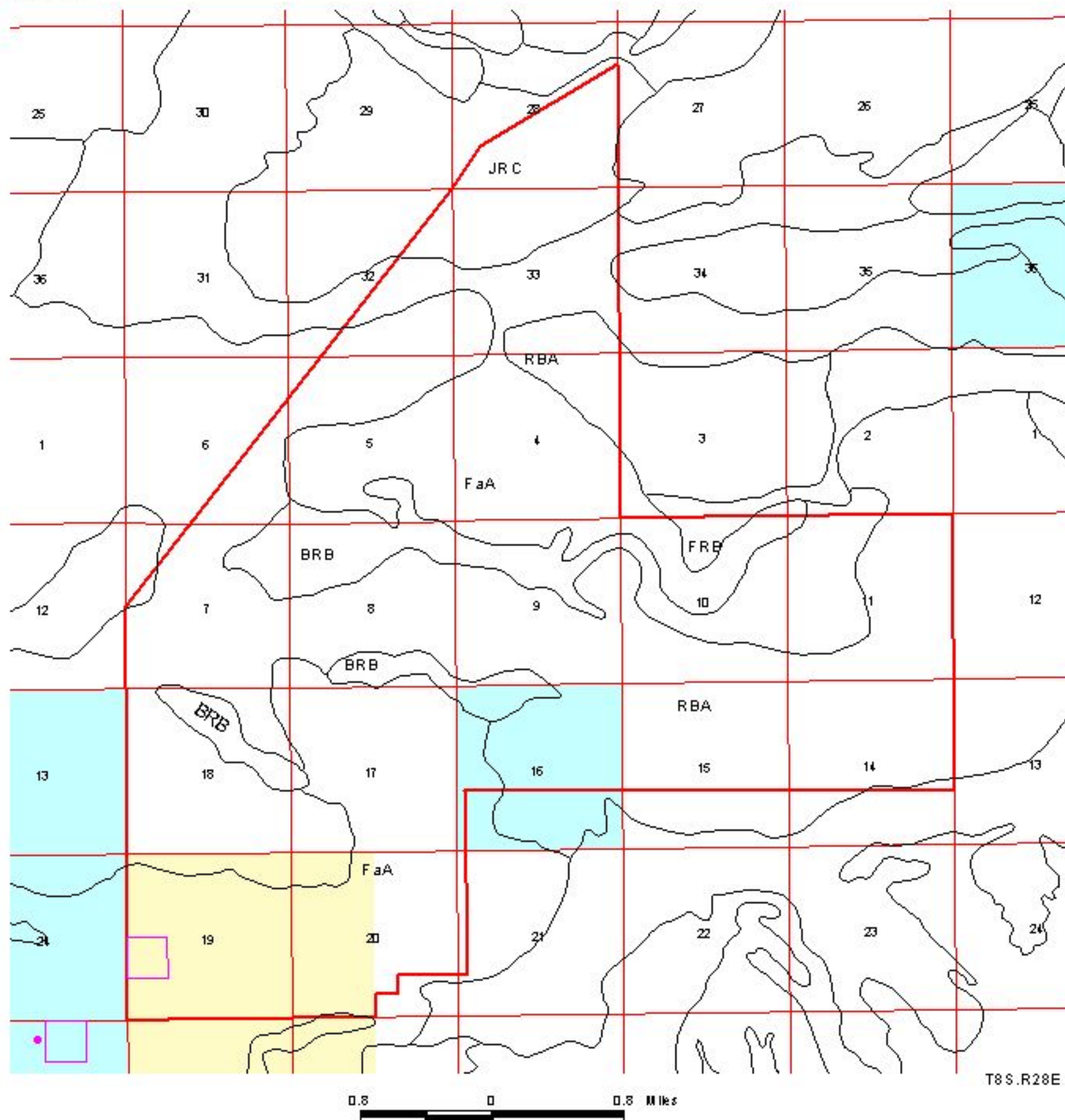
Allotment Boundary

Produced by the Roswell Field Office
GIS Intern on July 8, 2003.

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or for any other purpose. The data are provided for informational purposes only and should not be used for any other purpose. No warranty is made by BLM, BLM, BLM, or any other agency, for any other purpose. No warranty is made by BLM, BLM, BLM, or any other agency, for any other purpose.



T7 S. R27 E



Public



Study Plots



State



Private



Study Locations



Soil Mapping Units



Allotment Boundary

Produced by the Roswell Field Office
GIS Intern on July 8, 2003.

[illegible]